

II. CHIRONOMIDAE.

By F. W. EDWARDS.

Atrichopogon cavernarum, sp. nov.

♀. *Head* yellow. Eyes quite bare, in contact for a long distance above the antennae. Proboscis nearly as long as the eyes. Palpi with the second segment only slightly enlarged, the two terminal segments together almost as long as the second. Antennae with the scape yellow, sharply contrasted with the black flagellum ; segments 1-8 of flagellum almost globular, together scarcely longer than the combined length of segments 9 and 10 ; hair-whorls rather dense and about twice as long as the short segments ; terminal segment with well-marked stylet.

Thorax almost uniformly light brownish yellow, scutellum paler, almost white. Mesonotum scarcely shining. Bristles all yellowish ; six long ones, alternating with short ones, on the margin of the scutellum. *Abdomen* with the tergites brownish, pubescence and venter yellowish. *Legs* entirely yellow, tarsi somewhat darkened, but uniformly, the last segment not darker than the rest. First hind tarsal segment about 2·5 times as long as the second. Claws simple. Hind tibiae with 5-7 long bristles. *Wings* with a slight but rather distinct greyish tinge. Macrotrichia numerous on the apical half of the wing, and towards the lower border. Venation almost as in *A. rostratus* (Winn.). Stem of median cell about half as long as the cross-vein. *Cu* forking below the tip of the first radial cell. *Cu1* straight, making an angle of about 100° with *Cu*. *An* almost reaching *Cu2*, then suddenly curved downwards for a short distance. Halteres with yellowish stem and whitish knob. Wing-length 2·8 mm.

♂ Resembles the ♀, with the following exceptions : Flagellar segments 1-9 scarcely darkened, the plumes yellow at the base, dark apically, on each segment ; 10 about one-third as long as 11, which is equal in length to 13, and slightly longer than 12. Hypopygium yellowish ; ninth tergite broadly rounded apically ; claspers gradually tapering, blackened on the apical third ; tips simple, rather bluntly pointed. First hind tarsal segment scarcely more than twice as long as the second. Wings much narrower than in the ♀, entirely devoid of macrotrichia. Cross-vein more oblique than in the ♀ ; *Cu* forking a little more distally ; *Cu2* not quite so straight, making an angle of about 120° with *Cu*.

Siju Cave, Garo Hills, Assam, Feb. 1922 (*S. Kemp* and *B. Chopra*). Numerous specimens (♂♀) found at distances of 100 to 500 and 1,700 ft. from the entrance. Cotypes in the Indian Museum and the British Museum.

The British Museum also possesses a series of specimens of the same species¹ collected in Batu Cave, 7 miles from Kuala Lumpur, Federated Malay States, Dec. 1896 (*H. N. Ridley*). A note by the collector states that they were from the interior of the cave, about a mile from entrance, living in complete darkness. The flies are mentioned by Mr. Ridley

¹ The tenth flagellar segment of the ♂ antennae is shorter in the Malayan specimens than in those from Assam, being only a quarter as long as the eleventh. No other differences are apparent.

in his paper on the caves of the Malay Peninsula¹ as follows : "Diptera.—A very small fly (family Chironomidae, gen. et sp. nov., closely allied to *Ceratopogon*) was exceedingly abundant in places where bats were plentiful, so much so as to be quite a nuisance. It apparently bred in the bat guano." The bats referred to were mostly fruit-bats of the genus *Cynopterus*.

A. cavernarum is closely allied to, and may perhaps be identical with *A. rhynchops* (Schiner) insufficiently described from Sydney, N. S. W. It is also very nearly related to *A. flavellus* Kieffer,² and *A. jacobsoni* (de Meijere) ; from the former it differs in its black flagellum and conspicuously darkened abdomen, and from the latter in its larger size and relatively longer second hind tarsal segment, that of *A. jacobsoni* being according to de Meijere only one-third as long as the first. It is noteworthy that both *A. flavellus* and *A. jacobsoni* have been recorded as settling in large numbers on the leaves of trees.

III. DOLICHOPODIDAE.

By C. G. LAMB, M.A., D.Sc.

Hercostomus Loew.

Hercostomus praetentans, sp. nov.

The following description is based on a single male specimen which was captured by Dr. S. Kemp and Mr. B. Chopra in the Siju Cave in the Garo Hills, Assam, about 450 feet from the entrance. Whether it is a true cavernicolous species or not must await further investigation ; on the one hand the chitin is well developed though it is of a somewhat abnormal colour, all very dark bluish black, and all the ocular apparatus is fully present ; on the other hand the remarkably large, pale ocelli, the excessive size of the chaetotaxis protecting bristles, and the remarkable elongate front tarsi provided with long hairs, are possible developments correlated with cave-dwelling habits, at least for part of the life of the insect.

The systematic position of the species is not very satisfactory. Its main characters lead to *Hercostomus* (*sens. lat.*), and in any case it is a member of the complex near that genus and *Hypophyllus*. It possesses, however, certain structural peculiarities that would fully warrant the erection of a new genus should related forms ever come to hand. The face is very different from that of a normal *Hercostomus* (fig. 1) ; it is very narrow and almost quite parallel, and is entirely silvery : the frons is also narrow. Aldrich describes a *H. latipes* from St. Vincent, (*Trans. Ent. Soc. London*, 1896, p. 311, see also Becker, *Dipterolog. Studien, Zool. Bot. Gesell. Wien.*, XIII, 1921, p. 33) in which the face is abnormally narrowed, though nothing like so much as in the present species. The frons is also unusual inasmuch as the area from just in front of the median ocellus to just beyond the antennal bases is very deeply sunk, forming a sort of crevasse from the base of which spring

¹ *Rept. Brit. Ass., Bristol* 1898, sec. C, p. 580.

² Dr. S. W. Kemp has kindly sent me specimens of *A. flavellus* for comparison with the new species.